

ABSTRACT

In a digital filter device which filters a plurality of signals by a single digital filter, an input data memory stores the input data strings generated by computing processors, and a digital filter reads the input data strings in a predetermined sequence to be filtered and generates output data strings. An output data memory stores the output data strings, and a data processor reads the output data strings in a predetermined sequence to be processed. Also, a switch table for associating an address of the input data memory in which the input data strings are stored with an address of the output data memory in which the output data strings are stored is provided, and based on this switch table, a switching controller provides timings of reading the input data strings out of the input data memory and of writing the input data strings as the output data strings into the output data memory through the digital filter. Furthermore, a filter memory and coefficient memories respectively store data-under-calculation and a filter coefficient in a delay circuit included in the digital filter.